
Chapter 2

Regulatory and Policy Framework for Environmental Planning in Damascus and Vicinity

Master planning attempts to balance appropriate land uses and zoning densities with environmental protection goals adopted by federal, state and local government. Environmental assessments are conducted during the master planning process to assure that land use and density decisions are made with knowledge of sensitive environmental resources and potential impacts. While many environmental regulations and guidelines are applied at the time of subdivision or site plan, the master plan recommends appropriate zoning and development to allow the development process to proceed more smoothly. The process aims to avoid conflicts in the development process where possible, or addresses potential impacts when other goals are deemed more important.

The information in this chapter summarizes the environmental framework established by federal, state and local laws, regulations and policy and is again arranged along biotic and abiotic lines with further subdivisions by subject area (see Table 8 for a chronology of environmental policy and regulation). This framework is reflected in the 1993 General Plan Refinement for Montgomery County in the chapter on Environment. The information on existing environmental conditions in Chapter 1 and in the data and mapping conducted as part of this environmental study supports the master plan by providing the baseline information as it relates to the legislation and policies affecting the watersheds in Damascus and vicinity.

Laws and Regulations Pertaining to Biota

Forests

Forest Conservation

Forest conservation protects dependent ecosystems and helps to retain the natural beauty of the community. Trees provide habitat and food for a variety of wildlife, cleanse the air and water runoff, and provide shade to ameliorate summer temperatures and winter wind chills. Since 1992, Montgomery County has been requiring forest conservation as part of applications for land disturbance and development. The county forest conservation law, amended in 2001, is required by, and modeled after, the Maryland Forest Conservation Act of 1991. Forest conservation recognizes the benefits of forest and trees in our increasingly urbanized environment and requires preservation and reforestation as part of the development process.

A general framework for the planting of street trees, establishment of new forests, and protection of existing forests during the area master planning process comes from the General Plan Refinement Goals and Objectives, approved and adopted in 1993. Specifically, Strategy F under Objective 4 is to "plant and retain trees and other vegetation near streams" and Strategy E under Objective 6 is to "minimize forest fragmentation to protect habitat continuity." Objective 8, which is to "increase and conserve the County's forests and trees," applies to forest and tree conservation. Strategies under Objective 8 are:

- Identify and designate forest preservation and tree planting areas.
- Ensure forest land conservation, tree planting, and related maintenance in all new development.

- Provide for increased tree cover and maintenance in urban and suburban areas and along transportation rights-of-way.
- Encourage private and public landowners to protect existing trees and to plant additional environmentally appropriate native trees on their properties.

Preservation of urban forest and trees often is intended to meet the needs of people as much as the environment. Frequently, woods in developed areas are isolated, invaded by exotic vegetation, and in poor health. Some individual trees are worthy of preservation, but they can be difficult to save given site and layout constraints in new development or redevelopment. The forest conservation law encourages retention of existing trees wherever it is deemed possible, as well as appropriate maintenance to keep them viable. Street trees, which provide habitat for common species, enhance neighborhoods, and help to buffer road noise, are an important part of the urban landscape.

Forest Protection Strategy

In October of 2000, a task force appointed by the Montgomery County Executive produced a forest preservation strategy. The strategy included recommendations for increasing the quantity of forest canopy, improving the quality of forests and trees, and protecting and restoring forest ecosystems throughout the county. The recommendations were broken down for riparian forest, upland forest, urban street trees, forests on private land, and forests on public land. Among the action items included in the final report were:

Riparian Forests

- Reforest a total of 300 acres and protect 1000 acres per year of riparian forest throughout the county for the next five years.
- Identify and inventory all riparian areas that can be preserved or reforested.

Upland Forests

- Identify and prioritize upland forests throughout the county for preservation.

- Increase economic incentive programs for upland forest preservation on private land.
- Protect 500 acres of upland forests per year for the next five years.

Urban Street Trees

- Develop a long-term street tree planting and maintenance strategy.

Forests on Private Land

- Amend the existing Forest Conservation Law so that there is no net loss of forest cover in the county from new development.
- Establish minimum canopy cover standards for development projects.

Forests on Public Land

- Establish public agency guidelines to restore forest and tree canopy to available open space on public lands.
- Encourage interior forest restoration and preservation by creating "exclusion or limited use" areas.
- Increase funding for public initiatives, such as Legacy Open Space, to purchase and protect high priority forested lands.

Sensitive Areas Protection and Biodiversity

The Planning Act of 1992 establishes criteria that must be included in local government comprehensive plans such as Montgomery County's General Plan. Among the criteria to be incorporated are the seven visions for the state and the preparation of a "sensitive areas" element.

Implementation of the sensitive areas element is intended to protect streams and their buffers, 100-year floodplains, steep slopes, and the habitats of threatened or endangered species, as well as any particular resource the locality deems appropriate.

Damascus and Vicinity Environmental Resources

Of the environmental goals, objectives, and strategies developed for the General Plan in response to the seven visions, objectives 2, 4, and 6 particularly relate to the protection of environmentally sensitive areas:

Objective 2: Preserve natural areas and features that are ecologically unusual, environmentally sensitive, or possess outstanding natural beauty.

Objective 4: Conserve county waterways, wetlands, and sensitive parts of stream valleys to minimize flooding, pollution, sedimentation, and damage to the ecology and to preserve natural beauty and open space.

Objective 6: Preserve and enhance a diversity of plant and animal species in self-sustaining concentrations.

Local area master plans such as the Damascus master plan "are adopted as amendments to the General Plan" and "are expected to conform to the General Plan" (General Plan Refinement, Goals and Objectives for Montgomery County, 1993). To reflect the priorities established in the planning act and the General Plan, master plans consider the presence and amount of sensitive areas in their land use proposals. One approach to protecting sensitive areas is direct acquisition and conservation as parkland.

Another approach to managing sensitive areas is to incorporate their protection within proposed development plans for residential, commercial, and industrial development. During the development review process the *Environmental Guidelines* for development are applied to each development proposal. These guidelines recommend specific protection measures for sensitive areas such as establishing undisturbed stream buffers, protecting wetlands and establishing wetland buffers, maintaining areas of steep slope and highly erodible soil, conserving trees within development sites and implementing county stormwater management and sediment/erosion control standards.

In addition to protection provided by the guidelines, federal and state statutes regulate wetlands in Montgomery County. Federal regulation of wetlands was established through section 404 of the Clean Water Act and subsequent court cases defining wetlands as "waters of the U.S." In Maryland, federal and state environmental agencies share responsibility for issuing or denying

permits to dredge, fill or otherwise disturb wetlands. The proposed disturbance also must meet the more stringent requirements of the Maryland Non-tidal Wetlands Act. This act established a minimum 25-foot buffer between the edge of the area disturbed by construction and the wetland boundary. The Maryland Department of the Environment also administers state wetlands and water quality certification permits.

Federal and state environmental agencies also assist Montgomery County with wetland functional assessment studies, review of environmental and land use information contained within master plans, and regulatory review of proposed development.

State and federal law also require preservation of habitats of endangered species. For several years the M-NCPPC has contracted with the Maryland Department of Natural Resources, Wildlife and Heritage Division, to conduct surveys for rare, threatened, and endangered species and high-quality native habitats on selected parklands in Montgomery County. The result of these surveys has been the identification of several sites that contain rare, threatened, or endangered species. Surveys by M-NCPPC have identified additional areas containing rare, threatened or endangered species on park property.

Determinations regarding which species are rare, threatened, or endangered may be made either by the U.S. Fish and Wildlife Service (federal RTE species) or the Maryland Department of Natural Resources Heritage and Biodiversity Conservation Program (state RTE species). The state list includes "watchlist" species which, although not officially listed as endangered or threatened, have been identified as species in need of conservation due to declining or restricted populations.

Concern over the decline and disappearance of rare, threatened, and endangered species of plants and animals is part of a broader concern for the preservation of biological diversity. Biological diversity encompasses the variety of living species, variations within species, and the variable composition of biological communities. Biological diversity can be examined at different levels of organization, including genetic, species, ecosystem, and landscape scales (Scott et al., 1993).

Good biological diversity contributes to ecosystem stability, provides the genetic raw material to adapt to changing environmental conditions, preserves natural resources for potentially valuable future uses, and enhances the quality of life for many county residents. In

addition, planning for the preservation of biological diversity now may help preclude the need to undertake expensive and controversial endangered species restoration plans in the future.

In recent years, preservation of biological diversity has become a goal of government and conservation organizations. Approaches to preservation of biodiversity include the identification and acquisition of unique or representative natural communities by public agencies or private foundations; identification and protection of unique or representative natural communities on existing public lands, and land use planning which recognizes the value of biological diversity.

Wetlands

Federal

The primary goal of current wetland regulations and policies is to achieve "no net loss of wetland acreage and function, and [to] strive for a net resource gain". Regulatory programs flow from Section 404 of the federal Clean Water Act of 1972. Federal legislation authorizes the U.S. Army Corps of Engineers to issue permits for the discharge of dredged or fill materials into waters of the United States, including wetlands.

State and Regional

The state of Maryland modeled its Nontidal Wetlands Protection Act (COMAR Title 26, Subtitle 23) after the federal legislation. Differences include state provisions for regulation of activities which alter wetland hydrology or vegetation and activities which impact the 100-year floodplain, 25-foot wetlands buffer, and 100-foot expanded buffer.

Much of the impetus for protection of wetlands in Maryland comes from regional efforts to protect and restore the Chesapeake Bay, especially including the 1987 Chesapeake Bay Agreement and subsequent directives from the Chesapeake Bay Executive Council (CBEC). In 1997 the CBEC issued directive 97-2, which established regional wetland protection and restoration goals. Maryland's former governor, Parris Glendening committed the state to seek voluntary restoration of 60,000 acres of wetlands in excess of regulatory requirements as part of the regional wetland restoration effort.

Local

Based on Article 28 of the Annotated Code of Maryland, and with guidance provided by the Maryland Economic Growth, Resource Protection, and Planning Act of 1992 (requiring a sensitive areas element in each local jurisdiction's general plan), Montgomery County has a General Plan for the Development of Montgomery County, Maryland. Included in the Environmental section of the General Plan is the following policy guidance:

General Plan Objective 4

"Conserve County waterways, wetlands, and sensitive parts of stream valleys to minimize flooding, pollution, sedimentation, and damage to the ecology and to preserve natural beauty and open space."

Strategies (related to wetlands protection):

- Identify and protect wetlands and other sensitive parts of watersheds.
- Maintain the natural character of drainage areas in the immediate vicinity of streams, rivers, and lakes.
- Minimize impacts from construction and operation of public and private facilities located in stream valleys, buffers, and floodplains; first priority should be given to preserving natural areas (avoidance), second priority to mitigation, and third priority to replacement with functional equivalents.
- Develop programs to rehabilitate damaged streams and then to maintain them.
- Mandate "no net loss" of wetlands.

This objective and these strategies are to be considered during master planning and implemented through application of the M-NCPPC's "Environmental Guidelines" during the development review process.

The Montgomery County Strategic Plan for Water Quality Protection, Volume I (Goals, Objectives, and Implementation Tasks) states that the M-NCPPC, in cooperation with MCDEP, "will work to improve the existing State inventory of wetlands in Montgomery County. The M-NCPPC, in cooperation with DNR will develop functional assessment studies for wetlands in various planning areas and watersheds as resources permit. The M-NCPPC has integrated wetland protection provisions into its work program for master plan

preparation, regulatory review, and environmental studies. This information will be included in the environmental analysis of new development projects.”

One objective of the Montgomery County Strategic Plan for Water Quality Protection is “To protect and enhance existing wetlands, restore degraded wetlands, and mitigate unavoidable wetlands losses through successful mitigation projects.” The implementation task associated with this objective states “The County will work closely with the State permit agencies and developers to facilitate local protection, management and restoration of wetlands resources. This will include a cooperative approach to identify and protect the county’s wetlands through master planning efforts, permitting and subdivision review, and through the development of special area management plans. Advance planning for wetland protection can help regulatory agencies and developers by identifying priority wetlands for protection and avoidance, discussing opportunities for acceptable mitigation and restoration when necessary, and minimizing costs of extended development reviews or requirements for site redesign. The M-NCPPC [has] update[d] and amend[ed] the Environmental Guidelines ... to include a provision for expanded buffers around wetlands in SPAs (Special Protection Areas).”

The master planning process takes into account the available information about wetlands and other natural resources and features of a planning area and determines the most appropriate protection areas, land uses and densities that balances the goals and objectives of communities with the protection of wetland and other natural resources.

At a site-specific level, a proposal for development is reviewed in terms of environmental impact and protection before being approved by the Montgomery County Planning Board. This includes review for protection of and minimizing impacts on wetlands on a site proposed for development. The Planning Board’s *Environmental Guidelines* define undisturbed natural buffers from wetlands and other natural features. The guidelines document is applied to a development proposal and is used, in conjunction with master plan recommendations and applicable federal, state, and county laws and regulations, as a basis to determine if the development proposal adequately protects natural features, including wetlands, on the development site. If wetland impacts are necessary and unavoidable, the *Environmental*

Guidelines provide the Planning Board with a framework to determine if such impacts are minimized.

Legacy Open Space

The Legacy Open Space Functional Master Plan has identified target land resources needed to protect water supply, rural open space, greenway corridors and historic resources in the Damascus Study Area. Funding is allocated through the Capital Improvement Program over time, to acquire land or easements to protect important resources. The water supply, rural open space and greenway corridor categories indicate large target areas where additional resource protection is possible.

The identified Legacy Open Space resources within the Patuxent River watershed will be further evaluated through the Damascus Master Plan process to determine whether the best method for protection of specific sites should be easement or parkland acquisition. In addition, two new areas, the Bennett Creek and Little Bennett Creek headwaters areas, will be evaluated for possible inclusion to the Legacy program under the category of environmentally sensitive natural resources.

Green Infrastructure

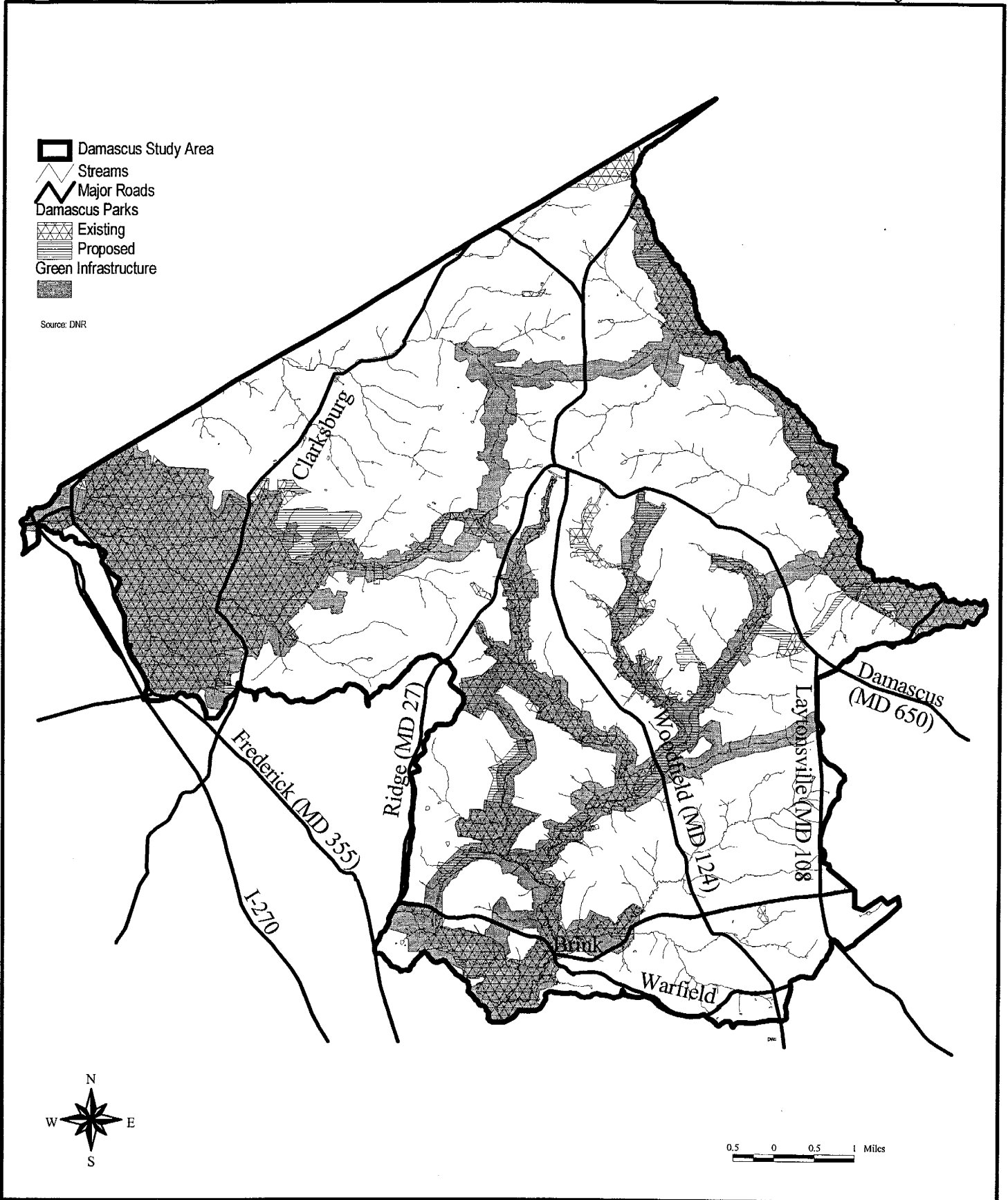
The Maryland Department of Natural Resources has mapped the green infrastructure throughout the state using sophisticated satellite imaging technology. The results, being reviewed by scientists, local government officials, and conservation groups, have been compiled to produce the *Maryland Atlas of Greenways, Water Trails and Green Infrastructure*. The first step identified the heart of the green infrastructure program called “green hubs.” These are typically areas hundreds of acres in size and are vital to maintaining the state’s vibrant ecology. The second step connected green hubs with “green links” - ribbons of land like stream valleys and mountain ridge lines that function as “Habitat Highways.” The result of this analysis for the study area is shown in Figure 17.

Green hubs provide a full range of habitat enabling animals to flourish amidst large areas of protected land. Green hubs also reduce the stress placed on forests, helping to renew woodlands and preventing their collapse into isolated pockets of trees.

Strings of green links form habitat highways, natural routes bridging green hub to green hub. Habitat highways

Green Infrastructure

Figure 17



allow wildlife safe passage through their natural domain; facilitate seed and pollen transport helping plant life thrive across the state; and keep streams and wetlands healthy by protecting adjacent vegetation. Preserving linkages between the remaining large habitat areas will ensure the long-term survival and continued diversity of Montgomery County's natural resources and environment.

The two large green hubs that influence the Damascus area are mostly within Little Bennett Regional Park and Patuxent River State Park. Protecting the edges of these large areas that lie outside park boundaries and protection of the green highways that link them will be a part of the master planning process. The links shown in Damascus focus on connections between the headwaters of Bennett Creek and the Patuxent River as well as between there and the headwaters of Great Seneca Creek. Other connections between the Great Seneca and Little Seneca are also indicated.

The master planning process will examine the detailed information available at the local level and determine more precisely the appropriate location of such ecological links and potential means of protection.

Maryland GreenPrint Program

Saving our diverse and ecologically precious natural resources is the basis for the state's GreenPrint program signed into law in 2001. GreenPrint is the method used to protect the lands identified by the abovementioned *Atlas* as necessary to preserve an extensive, intertwined network of land vital to the long-term survival of our native plants and wildlife, and certain industries that rely on a clean, healthy environment and abundant natural resources.

Maryland's GreenPrint program is designed to help protect the ecological vitality found in each region of the state, including forests, parks, greenways, and wetlands, preserving and enhancing it for future generations. The purpose of the program is threefold:

- Identify, using the most up-to-date computer mapping techniques, the most important unprotected natural lands in the state;
- Link, or connect, these lands through a system of corridors or connectors; and

- Save those lands through targeted acquisitions and easements.
- The GreenPrint Program builds upon existing conservation programs by:
- Providing urgently needed additional funding;
- Conserving and connecting large contiguous land areas with multiple important natural resource features;
- Providing a focal point to coordinate existing conservation programs with one another and increase their overall effectiveness; and guiding and coordinating land conservation and preservation efforts, just as Priority Funding Areas guide Smart Growth development.

To date in Montgomery County 7,266 out of 11,913 acres recommended as green infrastructure have been protected via parkland.

Laws and Regulations Pertaining to Abiota Water

Stream Water Quality Management

The need to protect water resources is reflected in federal, state, and local laws as well as in regulations and guidelines. The county's numerous small streams and creeks flow into the Chesapeake Bay as well as the main water supply resources (i.e., Potomac and Patuxent Rivers). The state of Maryland and Montgomery County are national leaders in developing sound watershed management plans and policies.

The condition of water resources, including streams and wetlands, has been of primary environmental concern for the state of Maryland for at least the past twenty years (see Table 8). The quality of the Chesapeake Bay and its many tributaries have dramatically benefited from environmental programs that reduce both point and some non-point sources of pollution. Improvement in sewage plant discharges, removal of obstacles to fish passage,